



App'n No.: 10/027,219  
 Applicant(s): Marc Vidal et al.  
 REVERSE TWO-HYBRID SYSTEMS

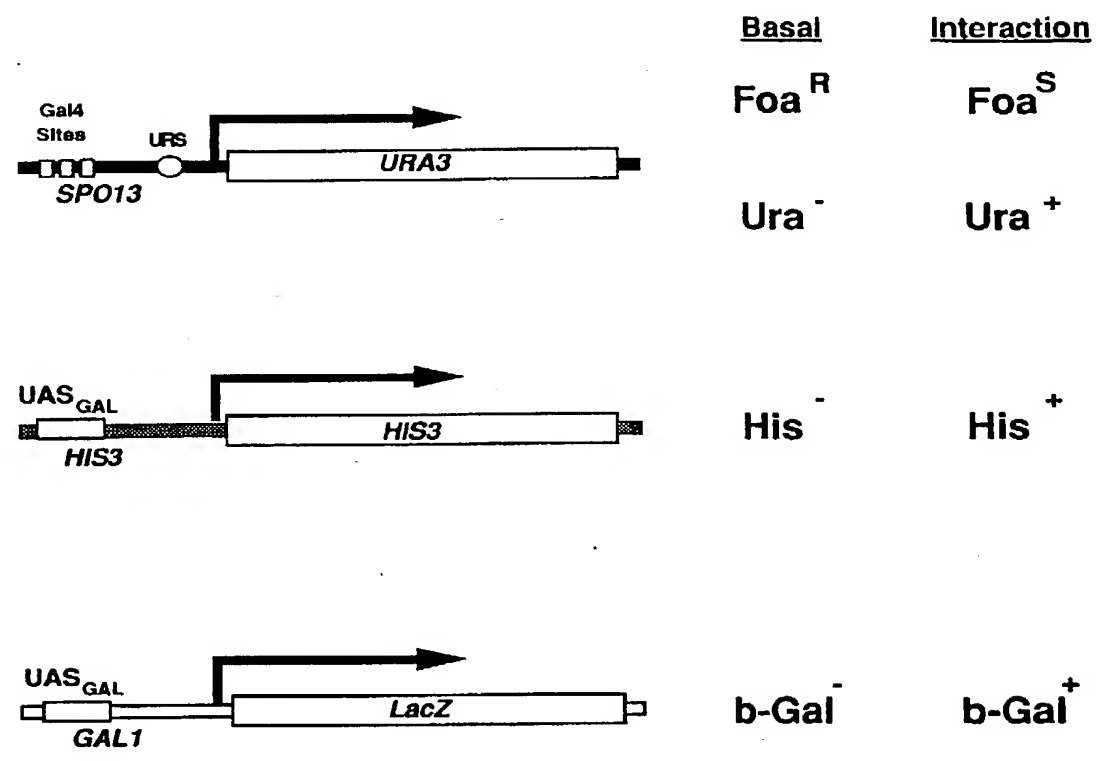


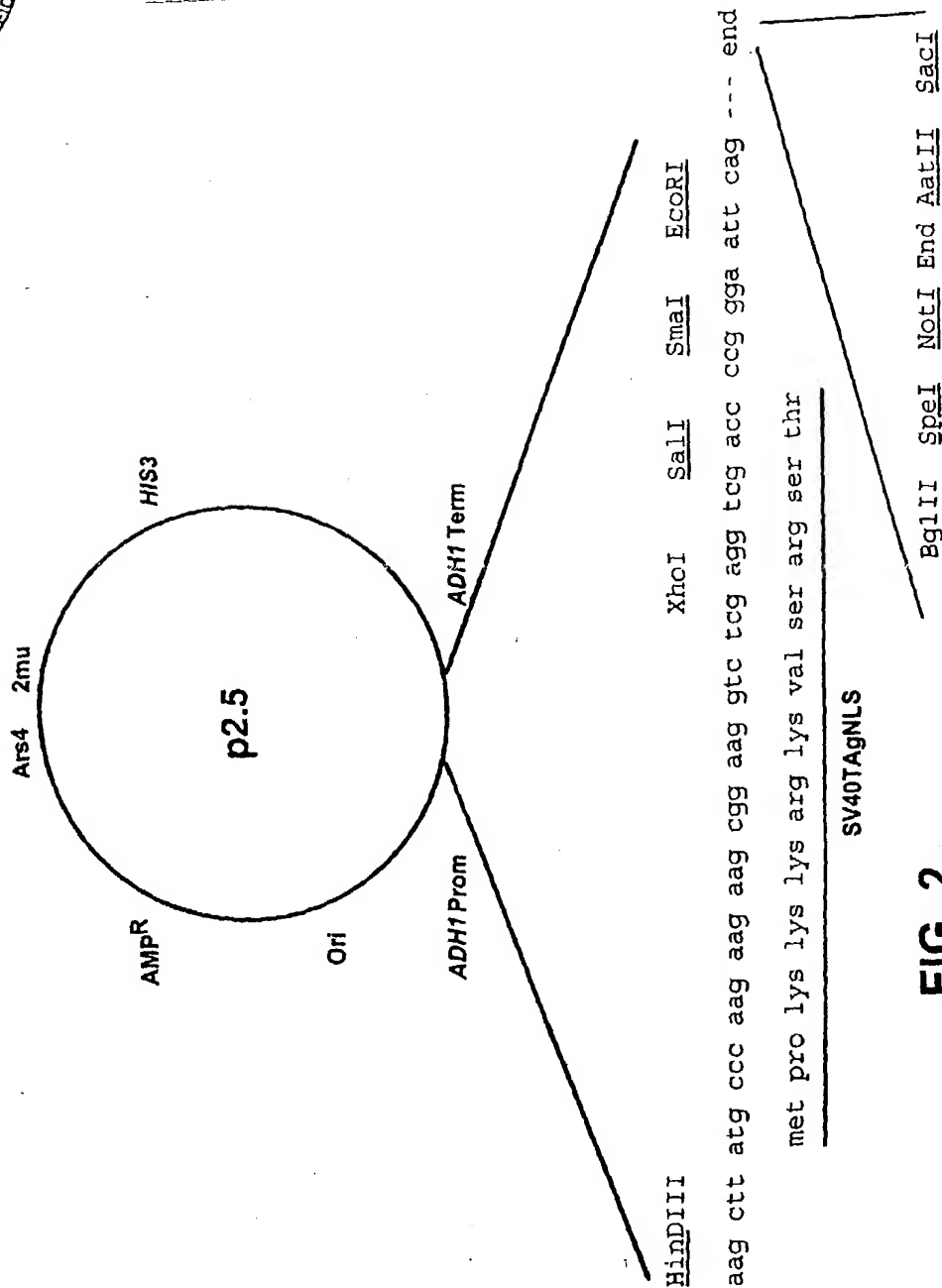
FIG. 1



Appl. No.: 10/027,219  
Applicant(s): Marc Vidal et al.  
REVERSE TWO-HYBRID SYSTEMS

Page 2 of 25

10027219.D02002



**FIG. 2**

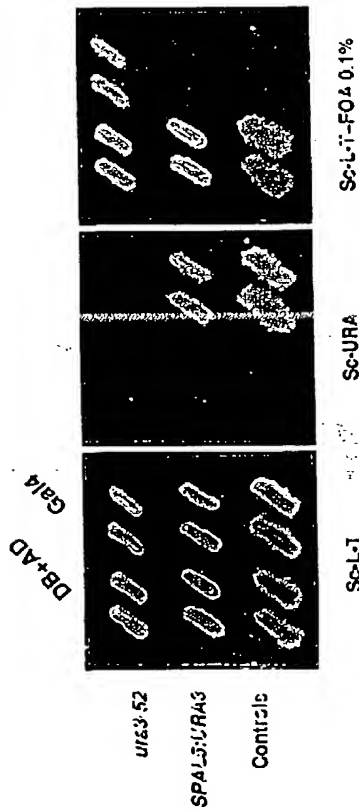


FIG. 3

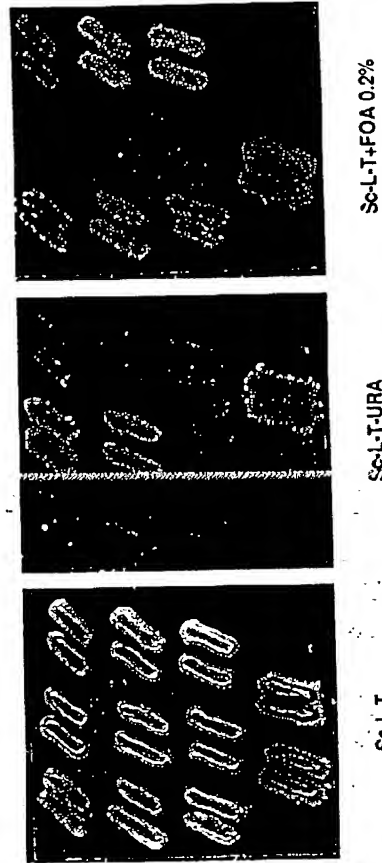


FIG. 5



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Applicant(s): Marc Vidal et al.  
REVERSE TWO-HYBRID SYSTEMS

Page 4 of 25

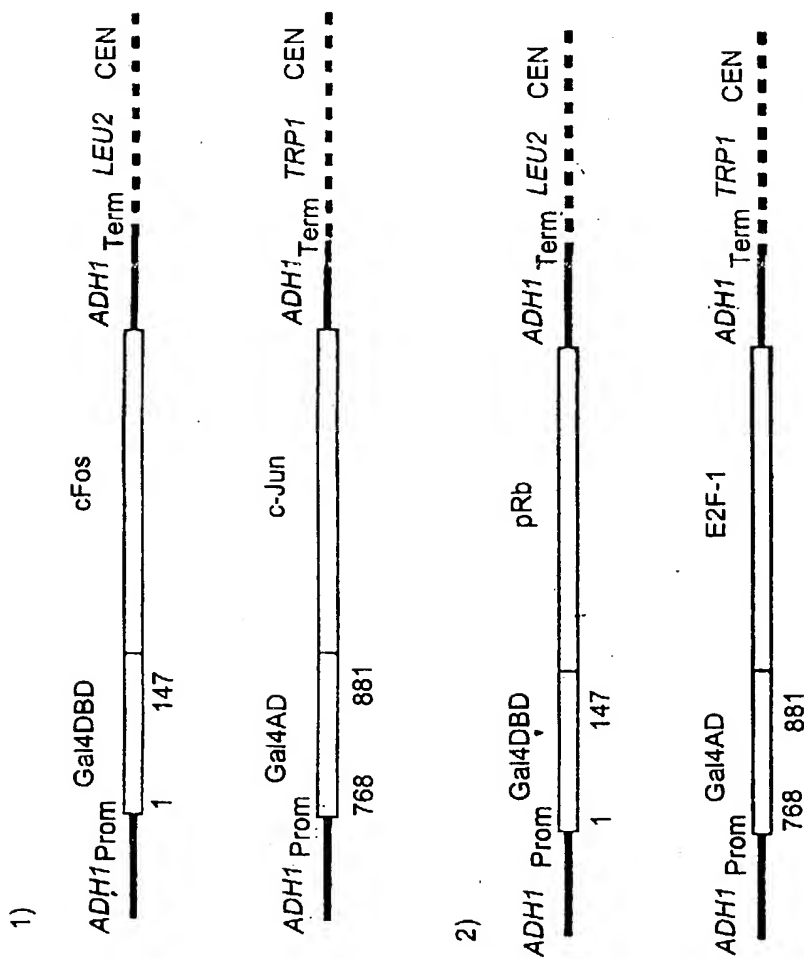
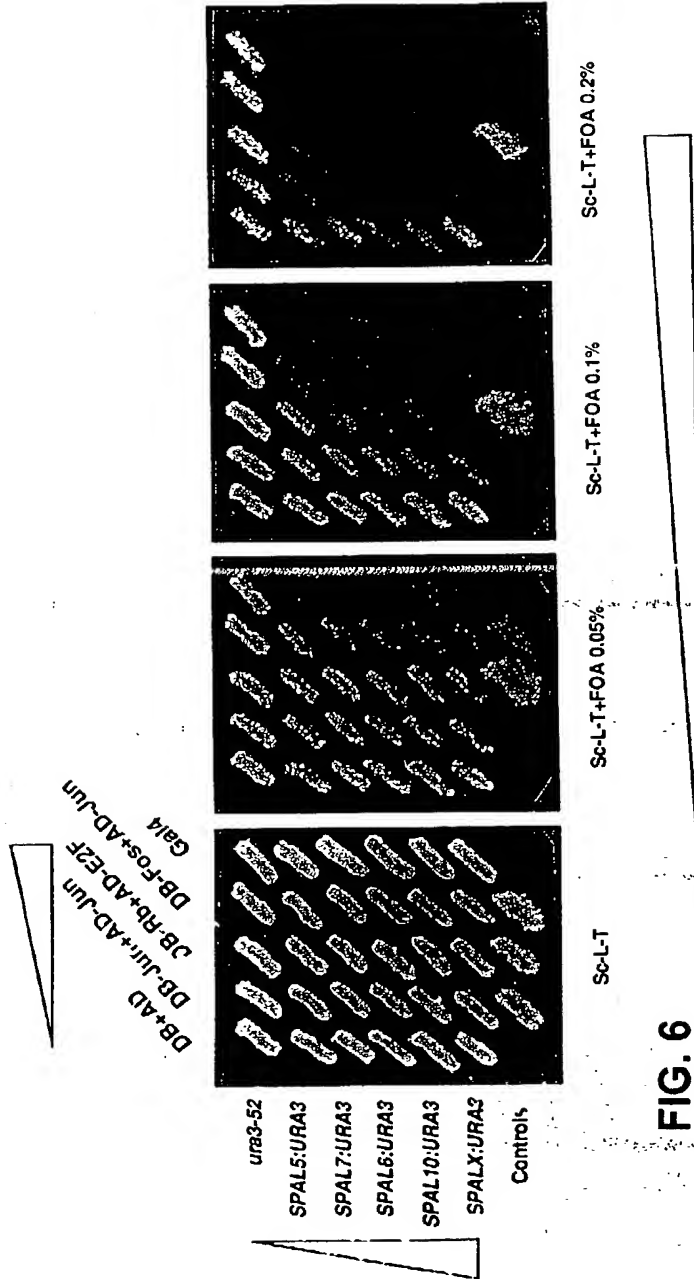


FIG. 4



Appln No.: 10/027 219  
Applicant(s): Marc Vidal et al.  
REVERSE TWO-HYBRID SYSTEMS

Page 5 of 25





Applicant(s): Marc Vidal et al.  
 REVERSE TWO-HYBRID SYSTEMS

Page 3 of 25

FIG. 7

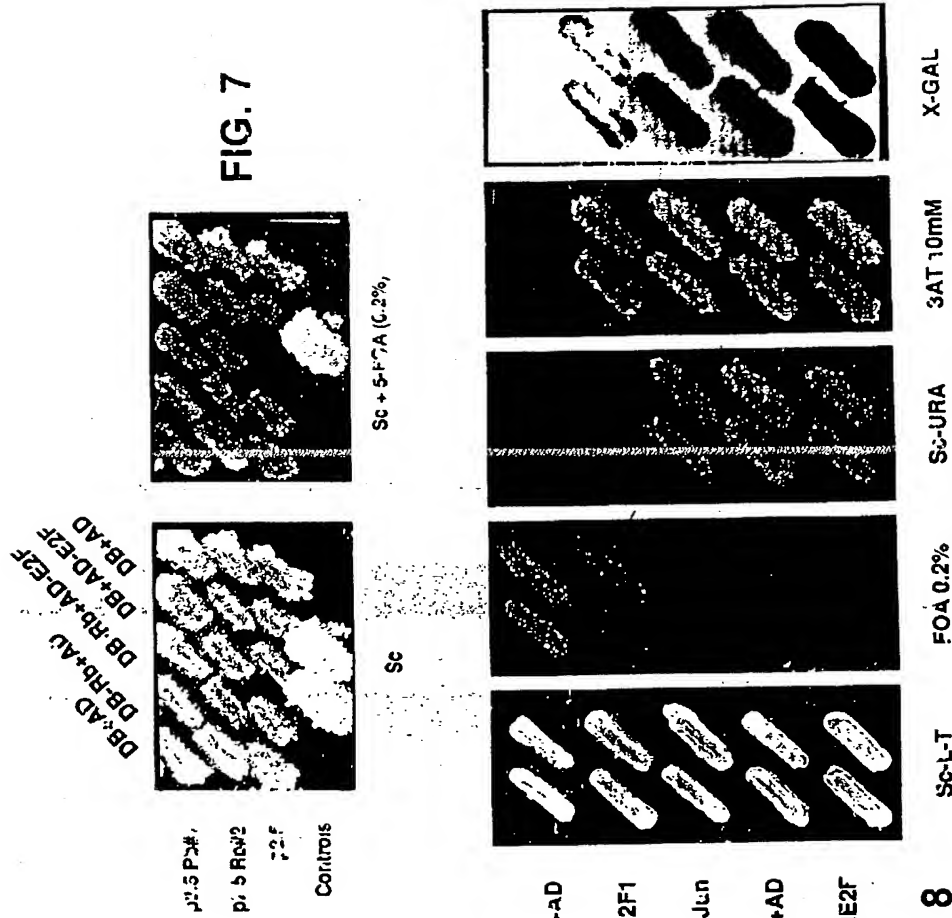
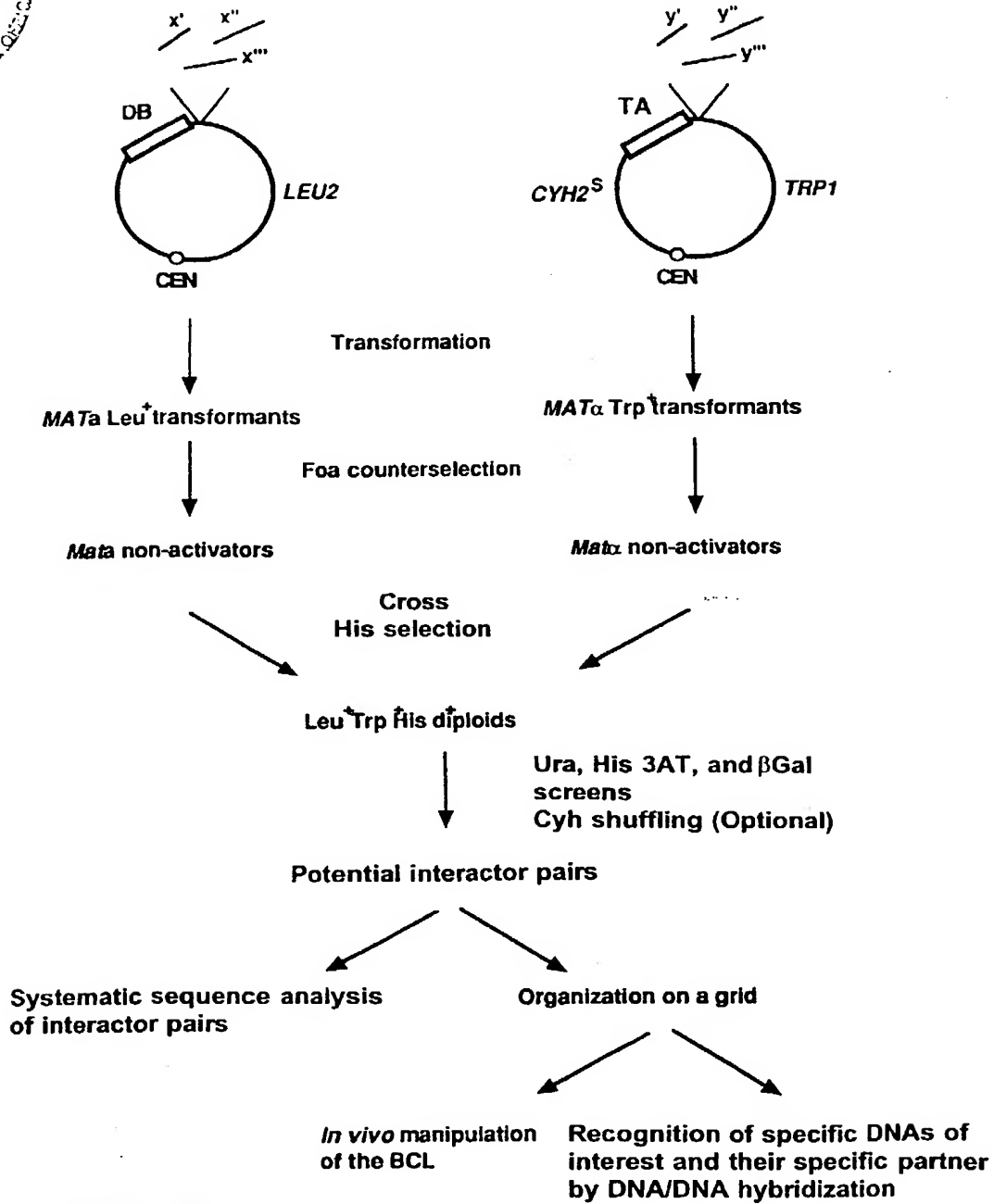
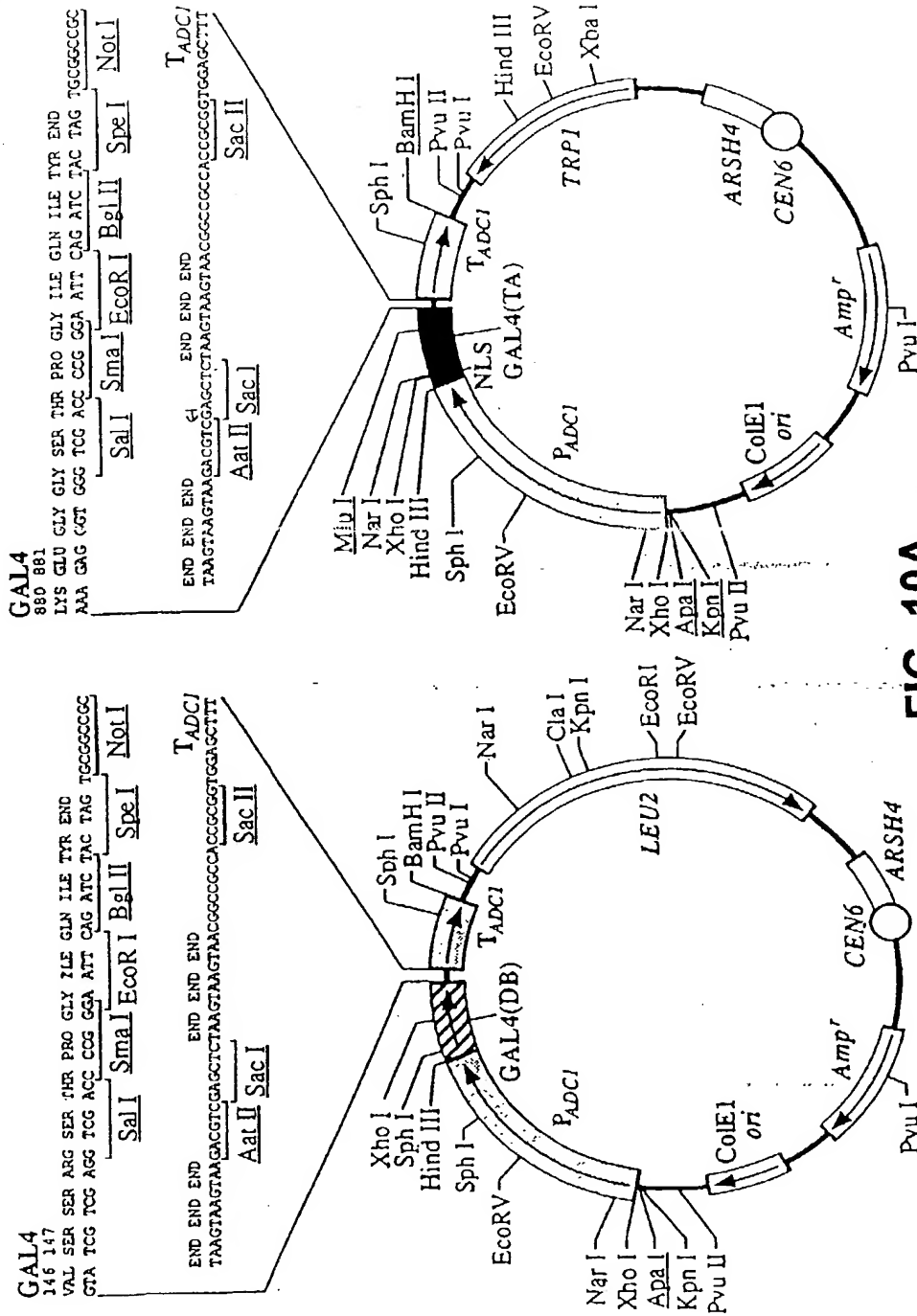


FIG. 8



Appln No.: 10/027,219  
Applicant(s): Marc Vidal et al.  
REFERENCE TWO-HYBRID SYSTEMS



**FIG. 10A**





Appln No.: 10/027,219  
Applicant(s): Marc Vidal et al.  
REVERSE TWO-HYBRID SYSTEMS

Page 9 of 25

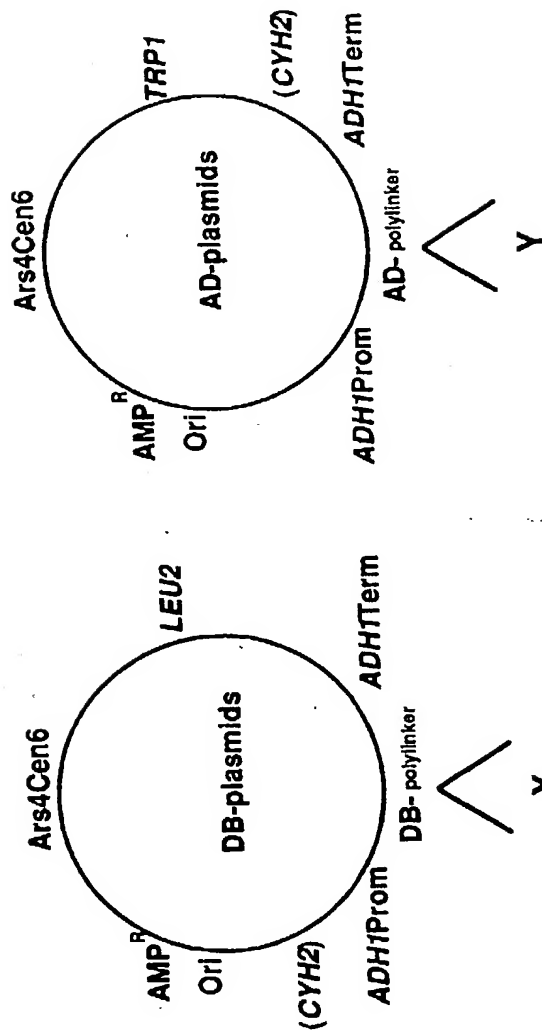


FIG. 10B



Appin No.: 10/027,219  
Applicant(s): Marc Vidal et al.  
REVERSE TWO-HYBRID SYSTEMS

Page 10 of 25

DB-X	Total	Hls+	Retested	Known Interacting	"Novel" Interacting	False positive
None	1x10 <sup>6</sup>	1	0			
p130	5x10 <sup>5</sup>	19	9	0	5 → 2	
DP1	2x10 <sup>5</sup>	7	7	6 → 2	1 → 1	
pRb	1x10 <sup>6</sup>	20	0			
p35	1x10 <sup>6</sup>	20	8	0	8 → 2	0
CDK3	1x10 <sup>6</sup>	38	16			
CDK3	1x10 <sup>6</sup>	38	16			
DCC1	3x10 <sup>6</sup>	81	23	0		
Zebu	1x10 <sup>6</sup>	81	23			

FIG. 11



Appn No.: 10/027,219  
 Applicant(s): Marc Vidal et al.  
 REVERSE TWO-HYBRID SYSTEMS

Page 11 of 25

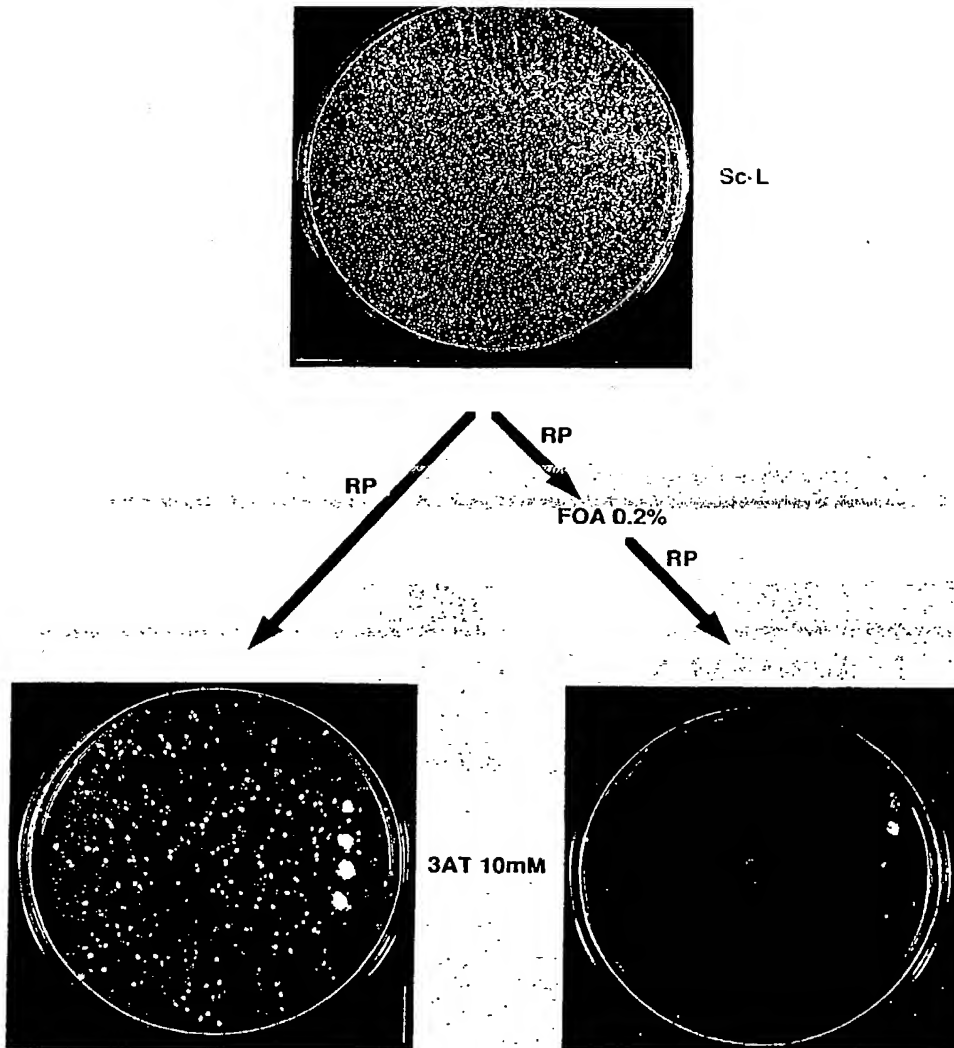
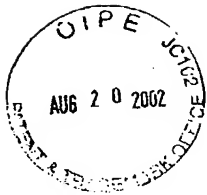


FIG. 12



10027219 1002002

App. No. 10/027,219  
Applicant(s): Marc Vidal et al.  
REVERSE TWO-HYBRID SYSTEMS

Page 2 of 25

AD-Y	AD-pRb	AD-107	AD-130	DP1	CDK2	Jun	None
DB-X							
None							
E2F1	2	1					
E2F2	1	1					
E2F3				2			
E2F4							
Fos						24	
Jun							
CyclinA							
p21							
DCC1							39

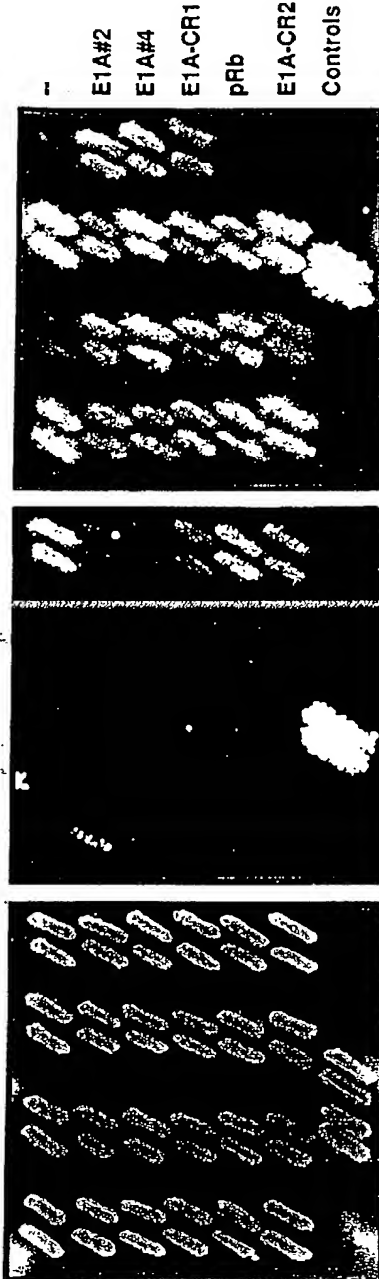
FIG. 13

Appln No.: 10/027,219  
 Applicant(s): Marc Vidal et al.  
 REVERSE TWO-HYBRID SYSTEMS

Page 13 of 25



DB-Rb + AD  
 DB-Rb + AD-E2F-1  
 DB-p107 + AD  
 DB-p107 + AD-E2F-1



Sc-L-T-H+FOA 0.2%

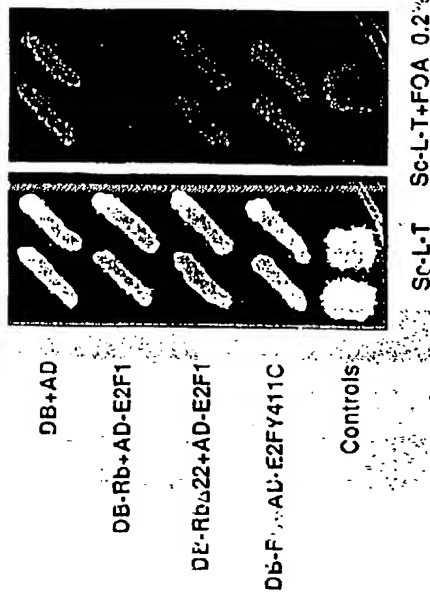
Sc-L-T-H-U

Sc-L-T-H

FIG. 14



FIG. 15



DB-DP1 +  
 AD-E2F1-20  
 AD-E2F1-21  
 AD-E2F1-21  
 AD-E2F1-32  
 AD-E2F1-34  
 AD-E2F1  
 Controls 1,2,3,4

Sc-L-T-U

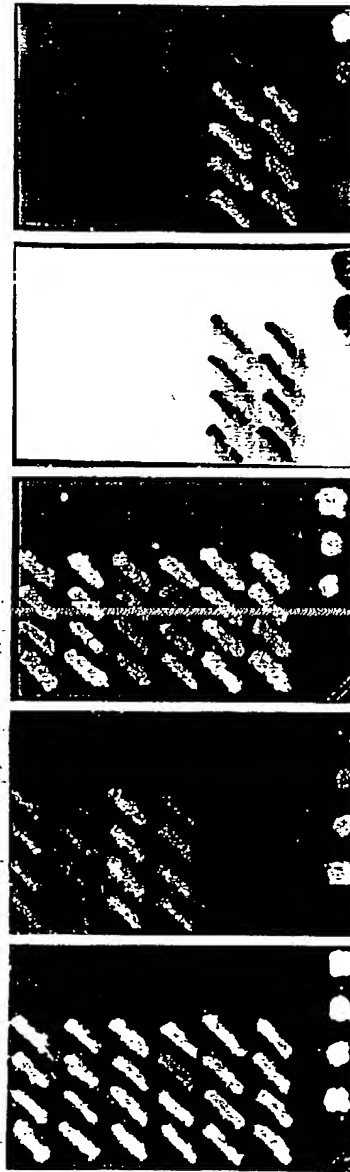
Sc-L-T+X-3al

3AT 20mM

FOA 0.1%

Sc-L-T

FIG. 20





10027219 .082002

0/027,219  
Applicant(s): Marc Vidal et al.  
TITLE TWO-HYBRID SYSTEMS

Page 10 of 25

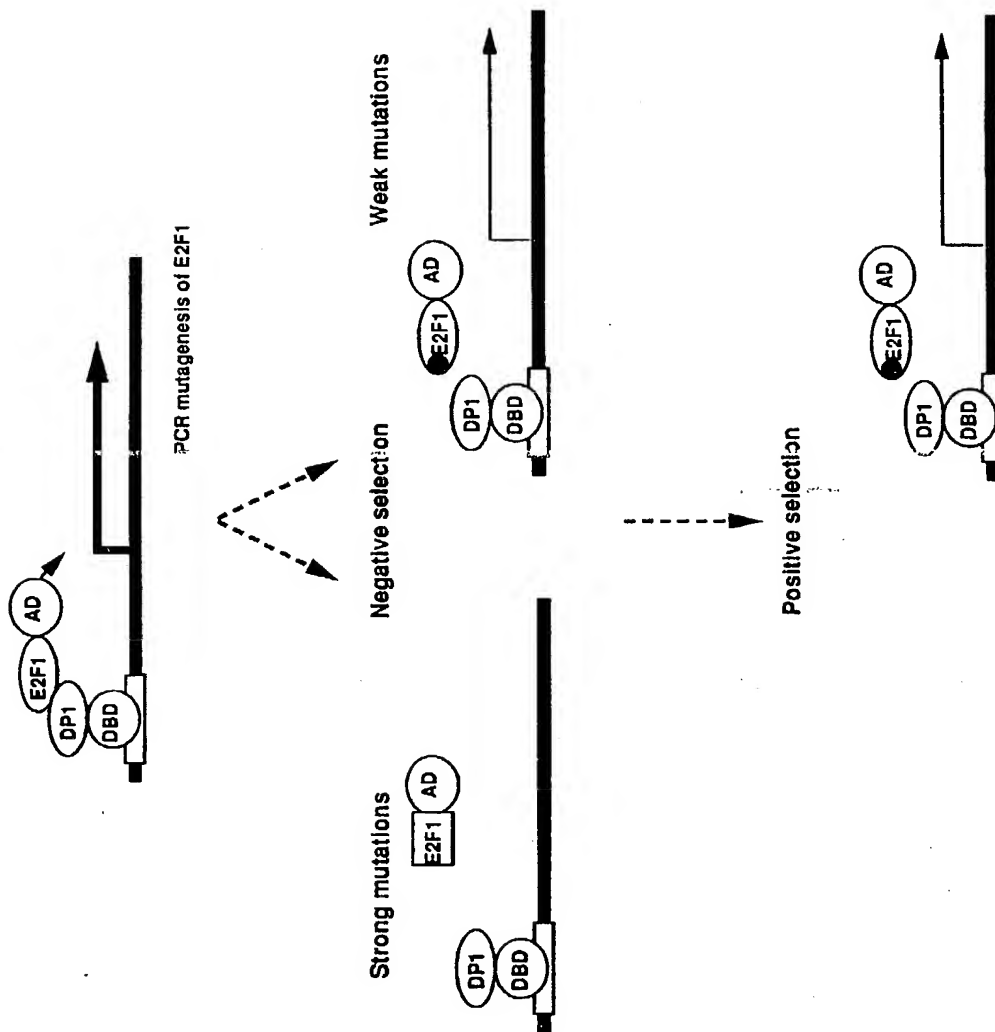


FIG. 16

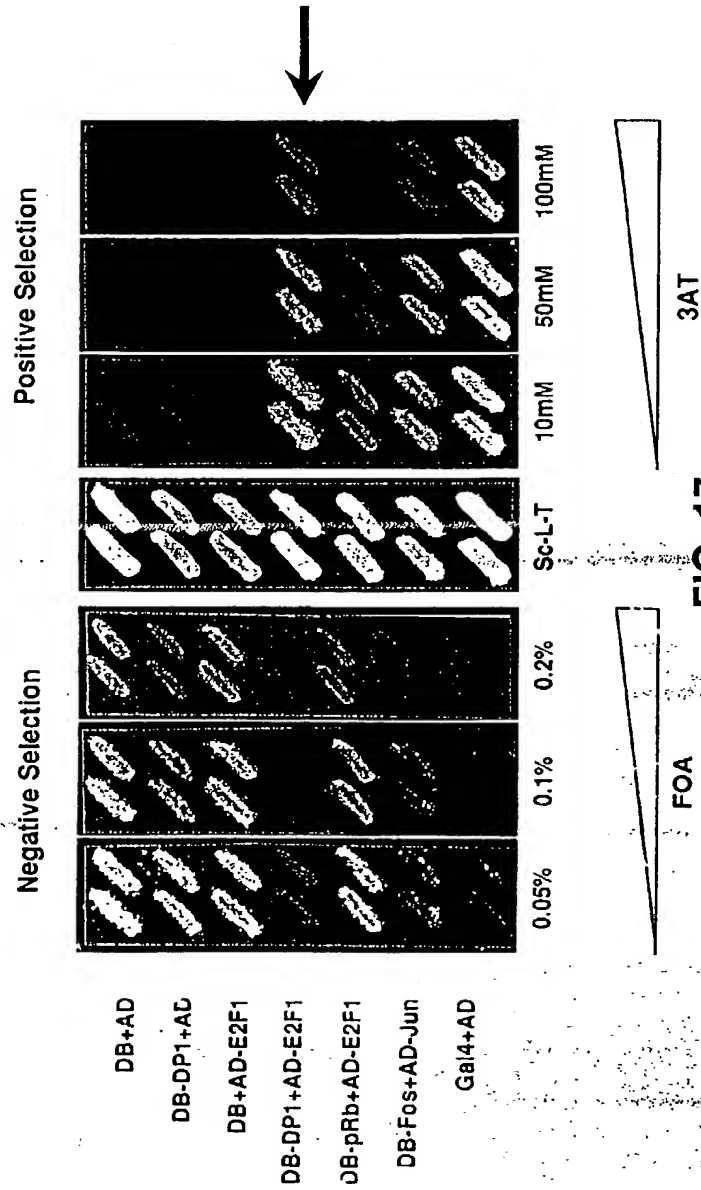


FIG. 17

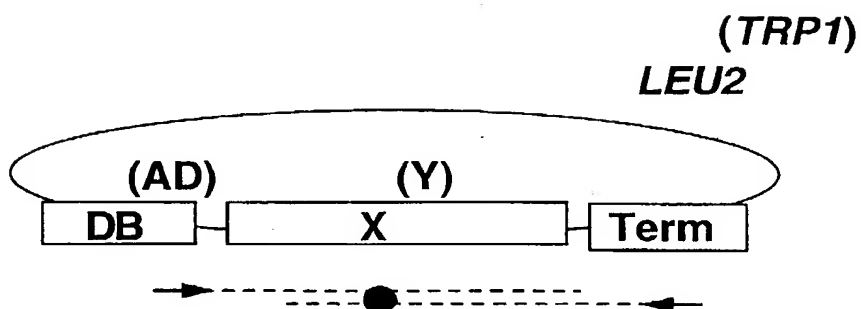


The diagram illustrates a DNA double-strand break (DSB) repair pathway. The top part shows a DNA molecule with a DSB, represented by a dashed line and a black dot. The bottom part shows the same DNA molecule after repair, with the break site labeled "Gap repair" and the ends marked with "X". A curved arrow indicates the transition from the initial state to the repaired state.

**FIG. 18A**



## In vitro mutagenic PCR reaction



## In vivo gap repair

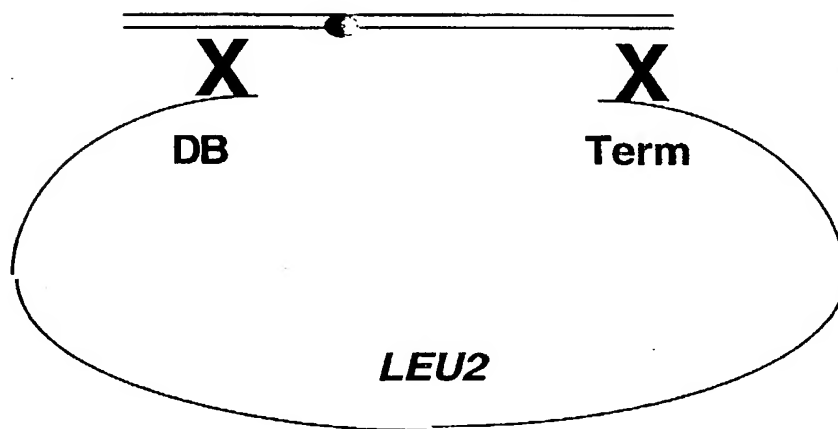


FIG. 18B

Appln No.: 10/027,219  
Applicant(s): Marc Vidal et al.  
REVERSE TWO-HYBRID SYSTEMS

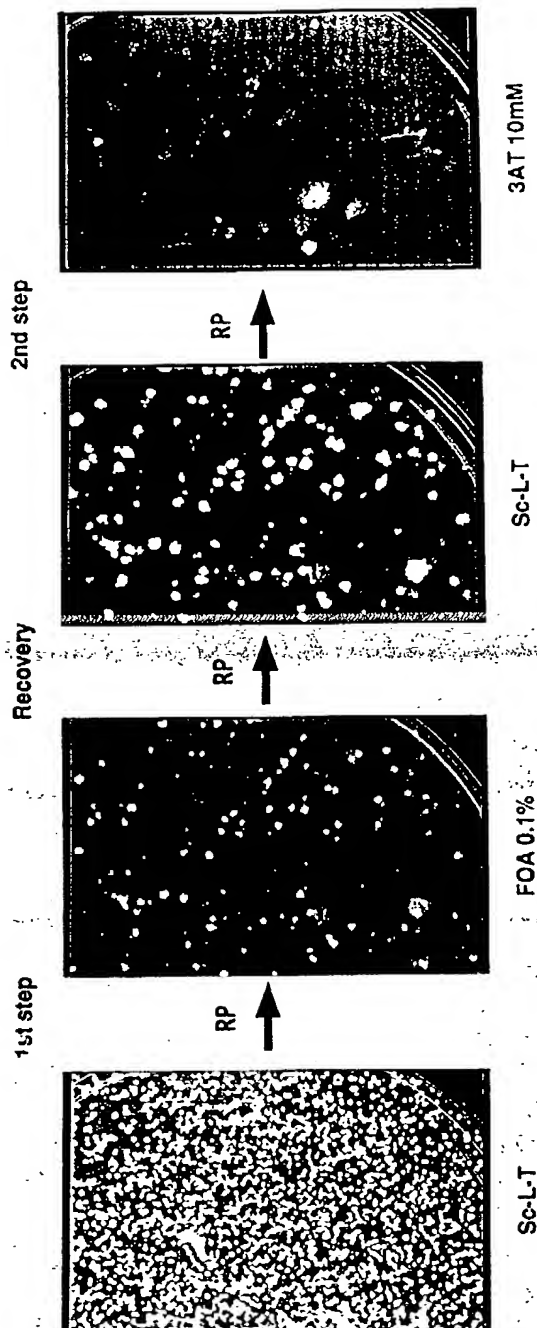


FIG 19



MARKED BOX 2

283	Q	I	N	L	K	S	H	S	S	V	H	V	L	L	L	L	I	N	K	301	E2F5
Q	I	H	L	K	S	S	V	S	S	E	E	V	L	L	L	L	V	N	K	E2F4	
Q	I	H	L	A	Q	T	T	Q	Q	V	E	V	L	L	L	C	P	E	E	E2F3	
Q	I	Y	L	K	Q	T	K	Q	P	V	E	V	L	L	L	C	P	E	E	E2F2	
Q	I	S	L	K	Q	G	K	G	P	V	D	V	L	L	L	C	P	E	E	E2F1	
T																				E2F1-20	
T																				E2F1-30	
T																				E2F1-32	
																				E2F1-31	
N																				E2F1-65	

FIG. 21

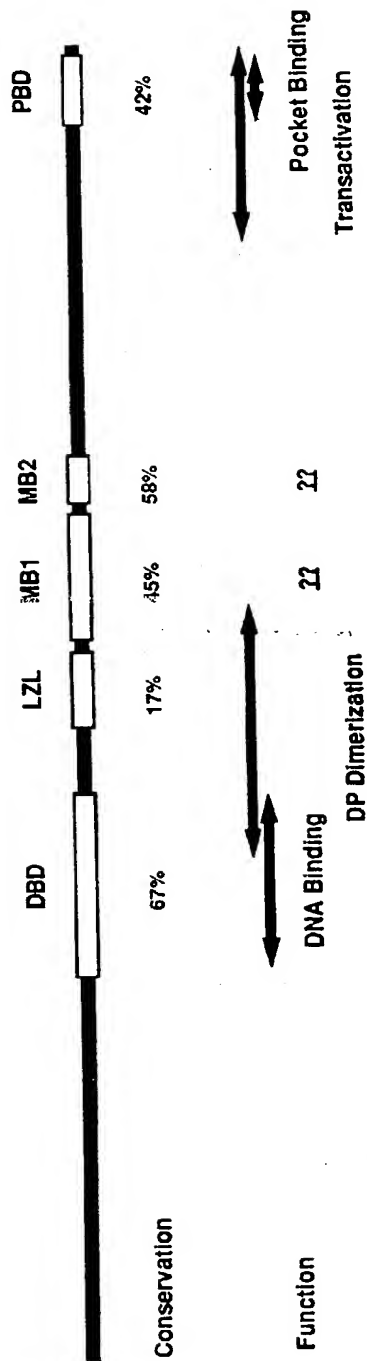


FIG. 22

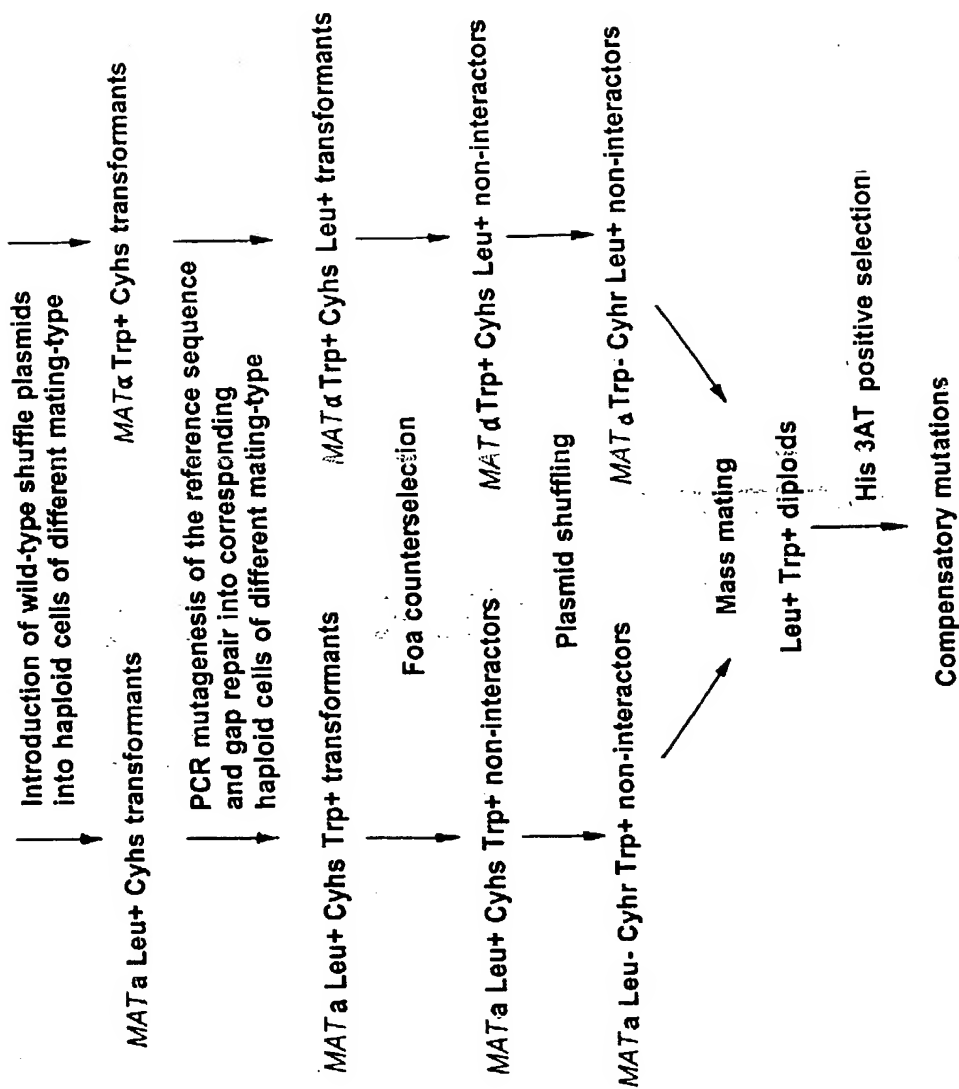
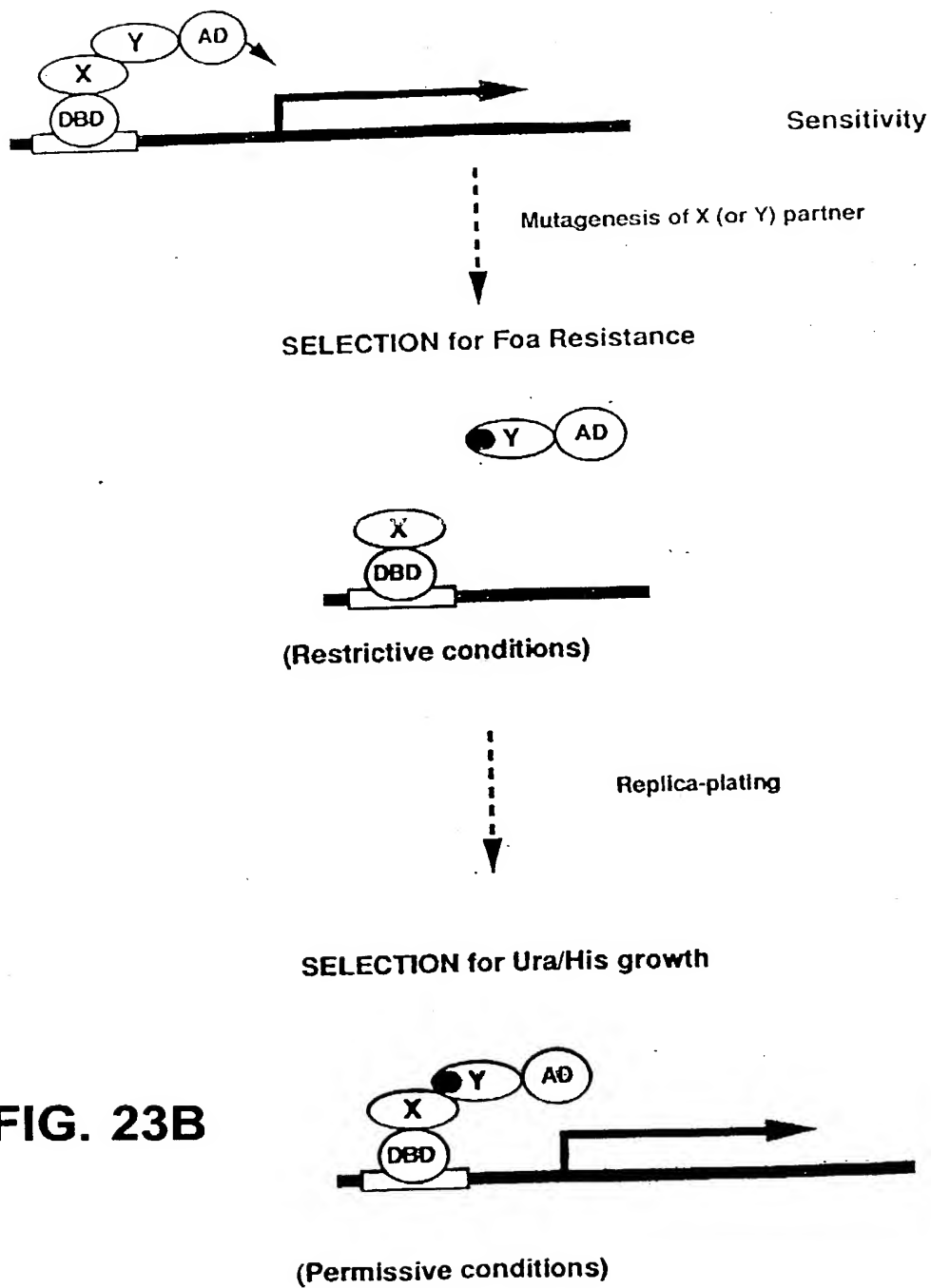
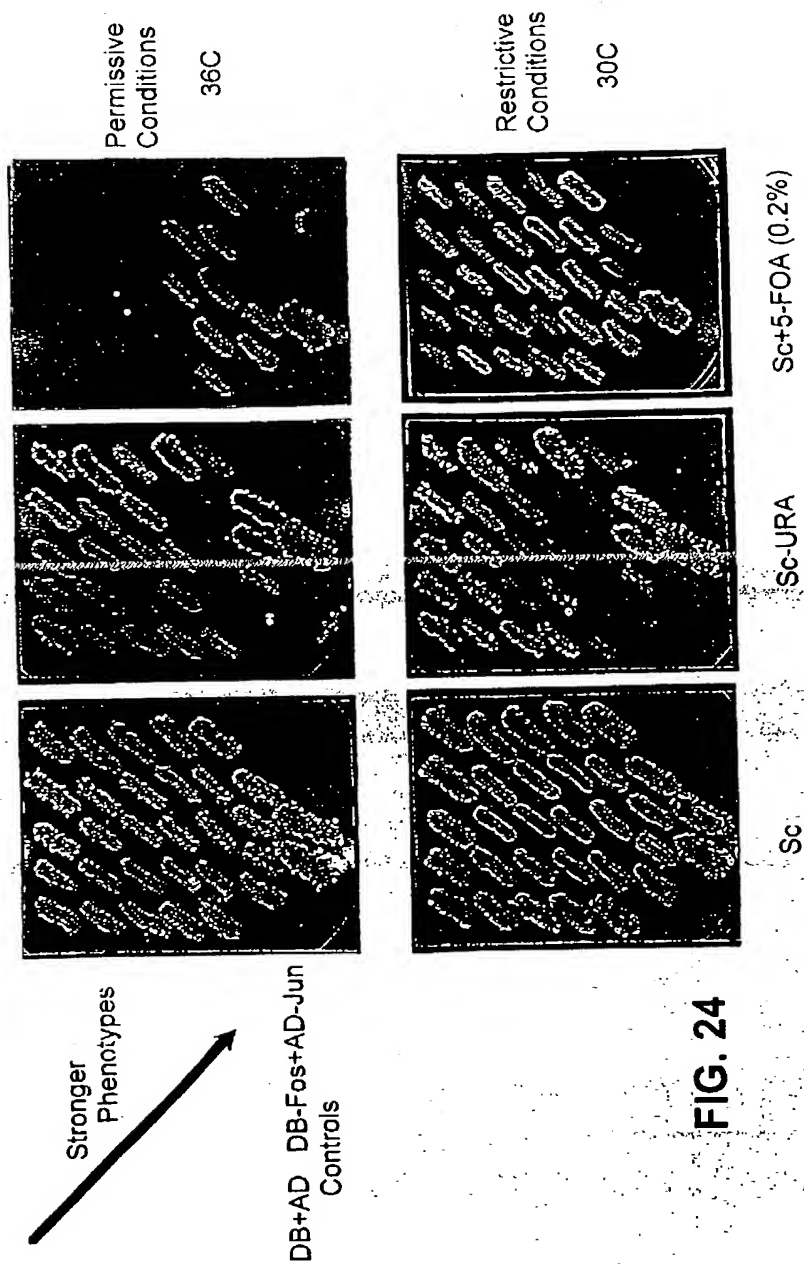


FIG. 23A









CLONE AND EXPRESS  
DB/Ag FUSION

IMMUNIZE  
ANIMAL

PERIPHERAL  
B CELLS

1. PCR Light and Heavy Chain  
Variable regions
2. GAP REPAIR into  
Ab Expression Vectors

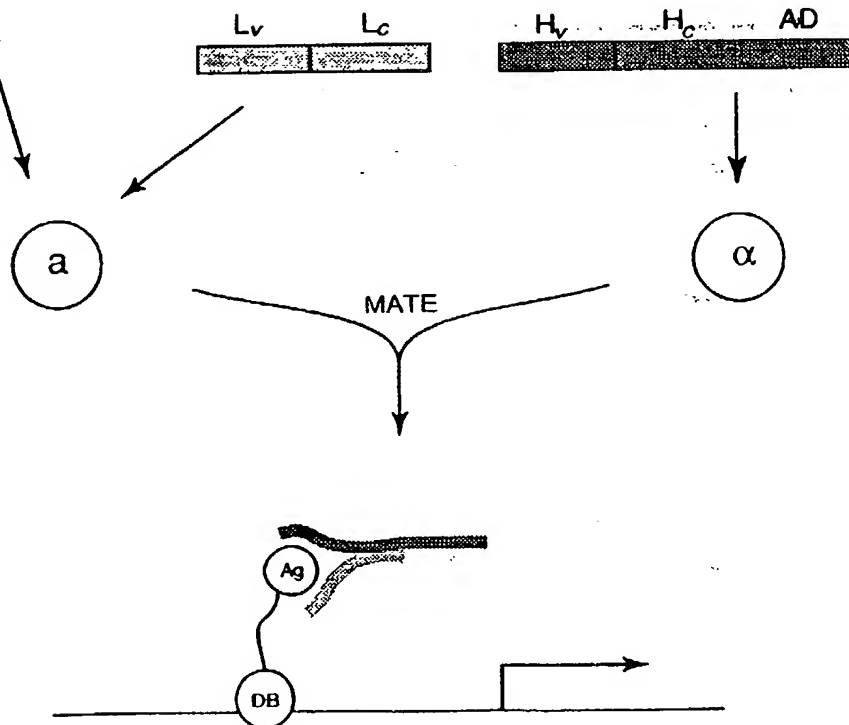


FIG. 25